

STATE OF COLORADO

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Colorado Department
of Public Health
and Environment

Colorado Immunization Information System HEDIS Data Request Process and File Specifications

Background

Colorado Immunization Information System's (CIIS) mission is to establish and maintain a population-based, fully functional, and sustainable immunization information system for the state of Colorado which will ensure timely and complete immunization of Coloradans, prevent disease in our communities and reduce healthcare costs to individuals and the State.

Under Colorado Revised Statute (CRS) § 25-4-2403(2), CIIS can accept immunization data from:

- Practitioners;
- Clinics;
- Schools;
- Parents;
- Legal Guardians, or Persons authorized to consent to immunizations pursuant to CRS § 25-4-1704;
- Individuals;
- Managed Care Organizations (MCO) or Health Insurance Plans in which an individual is enrolled as a member or insured, if such managed care organization or health insurer reimburses or otherwise financially provides coverage for immunizations;
- Hospitals;
- Colorado Department of Health Care Policy and Financing (HCPF) for individuals who are eligible for coverage under the "Colorado Medical Assistance Act", CRS § 25-5(4), (5) and (6) and "Children's Basic Health Plan", CRS § 25.5-8; and
- Persons and entities that have contracted with the State of Colorado pursuant to CRS § 25-4-2403(d)(9).

Records in the immunization tracking system shall remain strictly confidential and shall not be released, shared with any agency or institution, or made public upon subpoena, search warrant, discovery proceedings, or otherwise, except under the following circumstances:

- Medical and epidemiological information may be released in a manner such that no individual person can be identified.

- Immunization records and epidemiological information may be released to the extent necessary for the treatment, control, investigation, and prevention of vaccine-preventable diseases; every effort shall be made to limit disclosure of personal identifying information to the minimum amount necessary to accomplish the public health purpose.
- Immunization records and epidemiological information may be released to the individual who is the subject of the record, to a parent of a minor individual, to a guardian or person authorized to consent to immunization under section CRS §25-4-1704, to the physician, clinic, hospital, or licensed healthcare practitioner treating the person who is the subject of an immunization record, to a school in which such person is enrolled, or any entity or person described in paragraph (f), (h), or (i) of subsection (2) of this section.

Process Description

Your organization must have a signed Letter of Agreement (LOA) with CIIS and submit data at least on a monthly basis to CIIS in order to be eligible for a HEDIS match. Requests from organizations without an LOA nor providing CIIS data will not be considered

CIIS accepts securely transmitted request files from MCOs and processes those requests through a matching and record retrieval process. The results of this process are made available to the MCO to analyze. Records contained within the MCO's inbound file that have a corresponding record in CIIS are returned to the MCO, along with immunization history, in a results or outbound file. In order to provide maximum flexibility, results are provided in comma-separated-value (CSV) format, easily readable in any number of desktop applications and database management systems.

If there is no match in CIIS for a requested record, the MCO request record will be returned with a "N" or no-match indicator and no immunization data will be added. Matches will be designated with a "Y" and CIIS demographics, along with immunization data for the client, will be added to the outbound record.

In the case of a patient who has multiple potential matches within CIIS, CIIS staff will select the best possible match. If there is insufficient information to determine a match, a match indicator of "N" will be assigned and no matching immunization data will be included. It may be possible to work with CIIS staff to provide additional information or more accurate information for these clients to get to an exact match.

While optimum matching can be obtained by providing as many data fields as possible for each patient within the Inbound File, please note that resulting data - including the presence of a match - only indicates that it was found in CIIS and is not independently verified for accuracy.

Specifications for MCO Inbound File to CIIS

The inbound, or request file must be in a CSV or Excel format with the following fields:

Column Header	CIIS Field Name	Description	Notes	Data Type
Member Id	Client_ID	unique patient ID in MCO system		Text
Last name	Last_Name	surname		Text
First name	First_Name	given name		Text
Middle name	Middle_Name	middle initial or name		Text
Gender	Gender	gender	Leave blank if unknown	Text
Birth date	Date_of_Birth	birth date of patient		Date/Time
Address 1	Address_Line_1	street no. and street name		Text
Address 2	Address_Line_2	apartment #, box #		Text
City	City	city name		Text
State	State	state abbreviation		Text
Zip	Zip	zip code		Text
Home phone	Telephone_1	patient/guardian home phone	Include area code	Text
Mother first name	Mother_s_firstname	first name of mother		Text
Mother last name	Mother_s_lastname	last name of mother		Text
Father first name	Father_s_firstname	first name of father		Text
Father last name	Father_s_lastname	last name of father		Text
Guarantor Last	guar_last	Guarantor Last Name	If Mother/Father not present	Text
Guarantor First	guar_first	Guarantor First Name	If Mother/Father not present	Text

Specifications for CIIS Outbound File to MCOs

The outbound CSV response file contains one record for each request record in the inbound file and repeats the part of the request information as submitted, followed by Client Demographic data and an indication of matching success along with the reason for the match. There is a separate file with Services/Immunization data as found in CIIS. The Client Demographic data and Services/Immunizations data may be linked using the submitter's Member Id or clientseq, which is the CIIS unique client indicator. Please see the description of matching logic in Appendix 1 for further explanation about matching methodology utilized in this process. Appendix 2 provides the demographic and service code descriptions.

Generally, CIIS can process and return a match file within one week of having received a properly formatted file, which included all the appropriate data fields.

Client Demographic File:

Field Name	Description / Rules	Comments
Match	Length=1 (“Y” or “N”)	
MemberId		
clientseq	Numeric	
Last_Name	Max Length=24	As submitted
First_Name	Max Length=24	As submitted
Middle_Name	Max Length=24	As submitted
Gender	Length=1 (M, F, or Blank)	
Date_of_Birth	Length=10 (mm/dd/yyyy)	
Mother_s_Lastname	Max Length=24	As found in CIIS
Mother_s_Firstname	Max Length=24	As found in CIIS
Last_Name_Match	Max Length=24	As found in CIIS
First_Name_Match	Max Length=24	As found in CIIS
Import_msg		Reason for match

Services/Immunizations File:

Field Name	Description / Rules	Comments
MemberId		
clientseq	Numeric	CIIS unique client id
ServiceDate	Length=10 (mm/dd/yyyy)	Date Vaccine Administered
ServiceCode	Length=5	CPT code
ServiceDescription	Max Length=30	As reported by data feed
Series	Max Length=50	
Route	Max Length=50	Refer to CIIS Codes
BodySite	Max Length=50	Refer to CIIS Codes
Manufacturer	Max Length=10	Refer to CIIS Codes
Lotid	Max Length=20	Lot Number
Form_Date	Length=10 (mm/dd/yyyy)	VIS Form Date
Form_Given_Date	Length=10 (mm/dd/yyyy)	Date VIS Form Given To Client
ProviderName	Max Length=50	Ordering Provider
AdministeredBy	Max Length=50	Administering Provider
Payor	Max Length=10	Refer to CIIS Codes
History	Y/N	Entered as historical?
SiteofService	Max Length=80	Location where administered
Create_date	Length=10 (mm/dd/yyyy)	Date created in CIIS
Modifieddate	Length=10 (mm/dd/yyyy)	Date modified in CIIS
Service_id	Numeric	CIIS unique service id

Instructions

1. Send an email to Steve Jarvis, CIIS Programmer at steve.jarvis@state.co.us with a copy to Diana Herrero, CIIS Manager, at diana.herrero@state.co.us requesting a HEDIS match. Your email must contain:
 - Name of Requesting Organization
 - Name of Requestor
 - Contact information of Requestor
 - Number of records to be matched
 - Attachment containing file in a CSV or Excel format including as many of the data fields outlined in *Specifications for MCO Files Inbound to CIIS* as possible (outlined on page 2)
2. CIIS Programmer will verify that Requesting Organization is currently participating in CIIS.
3. CIIS Programmer will: acknowledge receipt of the request; indicate whether Requesting Organization is eligible to receive a HEDIS match; indicate if the Inbound File submitted is appropriate; and give an approximate time to return the Outbound File.
4. The Outbound File will be returned to the Requestor in approximately one week, unless otherwise indicated by CIIS Programmer.

Your organization must participate in CIIS in order to be eligible for a HEDIS match. Requests from organizations not currently providing data on a monthly basis will not be considered

Appendix 1: Data Matching Process Logic

The following data matching rules are applied to each patient record in the MCO inbound file:

- Basic Name and DOB check
 - Only run this comparison if Import client record last name, first name, and DOB are not blank
 - Check by LastName, FirstName, and DOB
 - If the middle names are the same, this is an exact match and the Additional Name and DOB checks are not run
 - If the middle names are **not** the same, run the Additional Name and DOB checks to be sure this is not a twin/multiple
- Additional Name and DOB checks
 - If last name contains a hyphen, check by LastName replacing hyphen with a space, FirstName, and DOB
 - This is considered an exact match *not* a duplicate for review
 - If last name contains a space, check by LastName replacing the space with a hyphen, FirstName, and DOB
 - This is considered an exact match *not* a duplicate for review
 - If last name contains a hyphen, check by LastName replacing hyphen with a space and reversing the two name parts, FirstName, and DOB
 - This is considered an exact match *not* a duplicate for review
 - If last name contains a space, check by LastName replacing the space with a hyphen and reversing the two name parts, FirstName, and DOB
 - This is considered an exact match *not* a duplicate for review
 - If last name contains a hyphen or space, check by LastName removing the hyphen or space, FirstName, and DOB
 - This is considered an exact match *not* a duplicate for review
 - If last name contains a hyphen or space, check by LastName removing the space or hyphen and reversing the two name parts, FirstName, and DOB
 - This is considered an exact match *not* a duplicate for review
 - If last name contains a hyphen or space, check by using parts of the last name removing the hyphen or space, FirstName, and DOB
 - Check by LastName SoundEx, FirstName, and DOB
 - Check by LastName, FirstName SoundEx, and DOB
 - Check by LastName, DOB, Address Line 1
 - Check by Import LastName to Production FirstName, Import FirstName to Production LastName, DOB
- Additional duplicate checks (will **not** cause an exit of this step)
 - Check by Mother's Name and DOB
 - Only run this comparison if Import client record mother's name is not blank or unknown
 - Check by Father's Name and DOB
 - Only run this comparison if Import client record father's name is not blank or unknown
 - Check by Guarantor Name and DOB
 - Only run this comparison if Import client record guarantor name is not blank or unknown

- Check by Mother's Name against Guarantor Name and DOB
 - Only run this comparison if Import client record mother's name is not blank or unknown
- Check by Father's Name against Guarantor Name and DOB
 - Only run this comparison if Import client record father's name is not blank or unknown
- Check by Guarantor Name against Mother's Name and DOB
 - Only run this comparison if Import client record mother's name is not blank or unknown
- Check by Guarantor Name against Father's Name and DOB
 - Only run this comparison if Import client record father's name is not blank or unknown
- Check by Phone1 and DOB
 - Only run this comparison if Import client record Phone1 is not blank
 - If possible duplicate is found, then return message "Phone #/DOB"
 - No check is run using Phone 2, because of work phone numbers stored here causing erroneous matches

Appendix 2: CIIS Demographic and Service Code Descriptions

Demographic Codes

Code Name	Char Code	Code Description
body_site	LA	Left Arm
	LG	Left Gluteal
	LL	Left Leg
	LLT	Left Lower Thigh
	LUT	Left Upper Thigh
	NA	Not Specified
	NS	Nasal
	PO	Oral
	RA	Right Arm
	RG	Right Gluteal
	RL	Right Leg
	RLT	Right Lower Thigh
	RUT	Right Upper Thigh
	UN	Unknown
clstatus	AC	Registered-Active
	IL	InActive-LOST
	IM	InActive-MOGE
	IP	InActive-PERM
	IU	InActive-UNK
	M1	MOGE-xfer to new practice
	M2	MOGE-returned letter/card
	M3	MOGE-provider informed
	M4	MOGE-letter from other provider
	UD	Unregistered-Deceased
	UL	Unregistered-Lost
	UN	Unknown
	UU	Unregistered-Unspecified
PlaceofBirth	AK	Alaska
	AL	Alabama
	AR	Arkansas
	AZ	Arizona
	CA	California
	CO	Colorado
	CT	Connecticut
	DC	District Of Columbia
	DE	Delaware
	FL	Florida
	FOR	Foreign Country
	GA	Georgia
	HI	Hawaii
	IA	Iowa
	ID	Idaho
	IL	Illinois

	IN	Indiana
	KS	Kansas
	KY	Kentucky
	LA	Louisiana
	MA	Massachusetts
	MD	Maryland
	ME	Maine
	MEX	Mexico
	MI	Michigan
	MN	Minnesota
	MO	Missouri
	MS	Mississippi
	MT	Montana
	NC	North Carolina
	ND	North Dakota
	NE	Nebraska
	NH	New Hampshire
	NJ	New Jersey
	NM	New Mexico
	NV	Nevada
	NY	New York
	OH	Ohio
	OK	Oklahoma
	OR	Oregon
	PA	Pennsylvania
	RI	Rhode Island
	SC	South Carolina
	SD	South Dakota
	TN	Tennessee
	TX	Texas
	UNK	Unknown
	UT	Utah
	VA	Virginia
	VT	Vermont
	WA	Washington
	WI	Wisconsin
	WV	West Virginia
	WY	Wyoming
ethnicity	HI	Hispanic
	NH	Non-Hispanic
	UN	Unknown
exemption	MED	Medical
	PER	Personal
	REL	Religious
GENDER	F	Female
	M	Male

language	ASL	American Sign Language
	CH	Chinese
	EN	English
	FR	French
	GR	German
	HM	Hmong
	JP	Japanese
	KO	Korean
	LA	Laotian
	NI	Needs/Has Interpreter
	OA	Other Asian
	OT	Other
	PG	Portugese
	PO	Polish
	RO	Romanian
	RU	Russian (Belorussian)
	SO	Somalian
	SP	Spanish
	UN	Unknown
	VT	Vietnamese
manufacturer	AB	Abbott Laboratories
	AD	Adams Laboratories
	ALP	Alpha Therapeutic Corp
	AR	Armour [use AVB]
	AVB	Aventis Behring L.L.C[use ZLB]
	AVI	Aviron
	BA	Baxter Healthcare Corp(use BAH)
	BAH	Baxter Healthcare Corp
	BAY	Bayer Corp (Miles Cutter)
	BP	Berna Products [use BPC]
	BPC	Berna Products Corp
	CEN	Centeon L.L.C.(use AVB)
	CHI	Chiron Corp [use NOV]
	CMP	Celltech Medeva Pharm [use NOV]
	CNJ	Cangene Corp
	CON	Connaught [use PMC]
	CSL	CSL Biotherapies
	DVC	DynPort Vaccine Co
	EVN	Evans Medical Ltd [use NOV]
	GEO	GeoVax Labs, Inc
	GRE	Greer Laboratories, Inc.
	IAG	Immuno Int'l AG[use BAH]
	IM	Merieux [use PMC]
	IUS	Immuno-U.S., Inc.
	JHP	JHP Pharmaceuticals
	JPN	The Research Fndtn for Mic
	KGC	Korea Green Cross Corp
	LED	Lederle [use WAL]
	MA	Massachusetts PH Bio [use MBL]

	MBL	Massachusetts Biologic Lab
	MED	MedImmune, Inc.
	MIL	Miles [use PMC]
	MIP	Bioport Corporation
	MSD	Merck and Co., Inc.
	NAB	NABI North American Bio
	NAV	North Am Vaccine, Inc(use BAH)
	NOV	Novartis Pharm Corp(Chiron)
	NVX	Novavax Inc
	NYB	New York Blood Ctr
	ORT	Ortho-Clinical Diagnostic
	OTC	Organon Teknika Corp
	OTH	Other manufacturer
	PD	Parkedale Pharmaceuticals
	PMC	Sanofi Pasteur Inc.
	PRX	Praxis Biologics [use WAL]
	PWJ	PowerJect Pharm [use NOV]
	SCL	Sclavo, Inc.
	SI	Swiss Serum & Vac Inst(use BPC)
	SKB	GlaxoSmithKline
	SOL	Solvay Pharmaceuticals
	TAL	Talecris Biotherapeutics
	UNK	Unknown manufacturer
	USA	US Army Med Research
	VXG	VaxGen
	WA	Wyeth-Ayerst (use WAL)
	WAL	Wyeth-Ayerst-Lederle-Praxis
	ZLB	ZLB Behring
multiple	2	Twin
	3	Triplet
	M	More
	N	No
payor	ARRA	American Recovery and Reinvestment Act
	CHP	Child Health Plan +
	Ins	Insurance
	MCD	Medicaid-Adult
	MCR	Medicare
	PH	Under Ins (Public Health only)
	PP	Private Pay
	VFA	VFC-Alaskan/Native Am
	VFI	VFC-Under Ins(FQHC-RHC only)
	VFM	VFC-Medicaid
	VFN	VFC-No Insurance
race	AM	American Indian
	AP	Other Asian Pacific
	BL	Black
	CH	Chinese

	FI	Filipino
	JA	Japanese
	OT	Other
	UN	Unknown
	WH	White
relationship	ANT	Aunt
	FD	Friend
	FP	Foster-parent
	GP	Grandparent
	GTR	Guarantor
	OTH	Other
	PAR	Parent
	SIB	Sibling
	SP	Step-Parent
	UNC	Uncle
route	ID	Intradermal
	IM	Intramuscular
	IN	Intranasal
	IV	Intravenous
	NA	Not Specified
	PO	Oral
	SQ	Subcutaneous
state	AK	Alaska
	AL	Alabama
	AR	Arkansas
	AZ	Arizona
	CA	California
	CO	Colorado
	CT	Connecticut
	DC	District Of Columbia
	DE	Delaware
	FL	Florida
	GA	Georgia
	HI	Hawaii
	IA	Iowa
	ID	Idaho
	IL	Illinois
	IN	Indiana
	KS	Kansas
	KY	Kentucky
	LA	Louisiana
	MA	Massachusetts
	MD	Maryland
	ME	Maine
	MI	Michigan
	MN	Minnesota
	MO	Missouri

	MS	Mississippi
	MT	Montana
	NC	North Carolina
	ND	North Dakota
	NE	Nebraska
	NH	New Hampshire
	NJ	New Jersey
	NM	New Mexico
	NV	Nevada
	NY	New York
	OH	Ohio
	OK	Oklahoma
	OR	Oregon
	PA	Pennsylvania
	RI	Rhode Island
	SC	South Carolina
	SD	South Dakota
	TN	Tennessee
	TX	Texas
	UT	Utah
	VA	Virginia
	VT	Vermont
	WA	Washington
	WI	Wisconsin
	WV	West Virginia
	WY	Wyoming

Service Codes

Code	Series	Description
00000	Disease	hxpx
86580	PPD	PPD
90281	Other	IG-Immune Globulin IM
90283	Other	IG-Immune Globulin IV
90287	Other	Botulism Toxoid
90291	Other	CMV-IGIV
90296	Other	Diphtheria Antitoxin
90371	Other	HBIG
90376	Other	Rabies IG
90378	Other	RSV-IgIM
90379	Other	RSV-IgIV
90389	Other	Tetanus IG
90393	Other	Vaccinia IG
90396	Other	VZIG
90476	Other	Adeno type4
90477	Other	Adeno type7
90581	Other	Anthrax
90585	Other	BCG
90632	Hep A	HepA-adult

90633	Hep A	HepA-2dose
90634	Hep A	HepA-3dose
90636	Hep A,Hep B	HepA-HepB Twinrix
90645	Hib	HibOC Hib Titer
90646	Hib	Hib-PRP-D ProHibit
90647	Hib	Hib-PRP-OMP Pedvax
90648	Hib	Hib PRP-T ActHib/Hiberix
90649	HPV	HPV Quadrivalent-Gardasil
90650	HPV	HPV Bivalent-Cervarix
90655	Influenza	Influenza preserv free 6-35 mo
90656	influenza	Influenza preserv free >3yrs
90657	Influenza	Influenza 6-35mo
90658	Influenza	Influenza >3yr
90659	Influenza	Influenza whole virus
90660	Influenza	Influenza intranasal FluMist
90663	Influenza	Influenza H1N1
90665	Other	Lyme disease
90669	Pneumo	PneuCon7 Prevnar
90675	Other	Rabies-IM
90676	Other	Rabies-ID
90680	Rota	Rotavirus-Rotateq
90681	Rota	Rota 2dose Rotarix
90690	Other	Typhoid-PO
90691	Other	Typhoid-IM
90692	Other	Typhoid SC/ID
90693	Other	Typhoid Military
90696	DTP/aP,Polio	DTaP-IPV Kinrix
90698	DTP/aP,Hib,Polio	DTaP-HIB-IPV -Pentacel
90700	DTP/aP	DTaP
90701	DTP/aP	DTP
90702	TD	DT pediatric
90703	TD	Tetanus Toxoid
90704	Other	Mumps
90705	Other	Measles
90706	Other	Rubella
90707	MMR	MMR
90708	Other	MeaslesRubella
90709	Other	RubMump
90710	MMR,Varicella	MMRVaricella
90711	DTP/aP,Polio	DTP-IPV
90712	Polio	OPV
90713	Polio	IPV
90714	TD	Td Preserv Free
90715	DTP/aP	Tdap
90716	Varicella	Varicella
90717	Other	Yellow Fever
90718	TD	Td adult
90719	TD	Diphtheria Toxoid
90720	DTP/aP,Hib	DTPHib
90721	DTP/aP,Hib	DTaPHib

90723	DTP/aP,Hep B,Polio	DTaP-HepB-IPV Pediarix
90724	Influenza	Influenza unspecified
90725	Other	Cholera
90726	Other	Rabies, NOS
90727	Other	Plague
90730	Hep A	HepA-unspecified
90731	Hep B	HepB-unspecified
90732	Pneumo	PneuPV23
90733	Meningo	Meningococcal Polysaccharide
90734	Meningo	Meningococcal MCV4-Menactra
90735	Other	Japanese Enceph
90736	Other	Zoster (shingles)
90737	Hib	Hib-unspecified
90738	Other	Japanese Enceph-Ixiaro
90740	Hep B	HepB Dialysis-3 dose
90741	Other	ISG-NOS
90743	Hep B	HepB-2dose
90744	Hep B	HepB-3dose
90745	Hep B	HepB-adol
90746	Hep B	HepB-adult
90747	Hep B	HepB Dialysis-4 dose
90748	Hep B,Hib	HepB-Hib Comvax